

## **REMARKS**

After entry of this response, Claims 32-59 remain pending in the present application. Applicant respectfully requests reconsideration by the Examiner in light of the following remarks.

The Examiner has maintained the rejections issued in the May 21, 2007, final office action asserting that the amendments made to the pending claims in response to that office action introduce new matter. Applicant respectfully traverses the rejections as set forth below. Applicant respectfully asserts that the amendments to the claims are fully supported by the specification, as will be discussed below, and the response to the May 21, 2007 final office action is incorporated in its entirety.

### **I. Rejection Under 35 USC §112**

Claims 32-59 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts that the subject matter of “detecting whether an autonomous intrinsic signal component is present” was not described in the originally filed specification. The Examiner apparently bases this conclusion on the notion that there was only a single mention of the word “autonomous” in the specification at paragraph 64, lines 1-2. The autonomous intrinsic signal component of the present application is the heart’s natural electrical signal typically propagated to the ventricles causing them to contract, rather than electrical activity that would arise due to artificial events such as pacing. The disclosure at paragraph 64 (while not intended to be a comprehensive disclosure of the subject matter that the Examiner considers is “new”) is a part of the full disclosure of the detection of “whether an autonomous intrinsic signal component is present.” Other examples where the relevant subject matter is disclosed in the specification include: the teaching in paragraph 13, which states that “the IMD analyzes one or more morphological characteristics associated with the ventricular signal to determine if the post-pacing ventricular signal contains an indication of possible intrinsic ventricular

activity;” and paragraph 15 which states that ”the implanted medical device can distinguish many ventricular signals that contain intrinsic ventricular activity, and thereby extend the pacing interval allowing the intrinsic ventricular activity to occur undisturbed.” The disclosure of the three elucidatory paragraphs noted above illustrate how the detection of an autonomous intrinsic signal component would be carried out. Furthermore, to remove any doubt and at the expense of being repetitive, the original specification further clarifies (as the Examiner clearly comprehends) that the signal being detected is indeed the autonomous intrinsic signal component. See paragraph 64, lines 1-2.

Accordingly, Applicant respectfully requests withdrawal of the rejection to Claims 32-59 under 35 USC 112, first paragraph.

## **II. Rejection Under 35 USC §102 (The Park and Van Dam references)**

The Examiner has rejected Claims 32-35, 41-44 and 51-54 under 35 U.S.C. 102(e) as anticipated by Park et al. (U.S. 2003/0153954, hereinafter “Park”) and Claims 32, 33, 35-42, 44-52, and 54-59 as anticipated by Van Dam et al., U.S. Patent No. 6,836,682, (hereinafter “Van Dam”).

As the Examiner is well aware, in order for a reference to anticipate a claim, the reference must teach each and every element of the claim. None of the applied references, singly or combined, teach “detecting whether an autonomous intrinsic signal component is present” as stated, for example, in Claim 32.

Applicant interprets the remarks at paragraph 3 and paragraph 4 of the office action as acknowledgement of the fact that Park does not teach, suggest or imply “detecting whether an autonomous intrinsic signal component is present.” Thus, in view of the explicit support for the amendments to the pending claims based on the originally filed specification, the rejection of the claims based on the Park and Van Dam references fail for this reason alone.

Further, with regard to Van Dam, the Examiner maintains that FIG. 8 “indicates that the steps taken within the flow diagram are utilized in order to

detect intrinsic activity within the signal.” Applicant respectfully disagrees with the Examiner’s characterization of the Van Dam reference. Van Dam simply discloses “determining whether the event was a pace or a sense.” See col. 11, lines 21-22. However, the explicit teachings of the reference fail to teach making a determination of whether or not there is an autonomous intrinsic component within the sensed signal. Rather, Van Dam merely discloses that “if a sense has been detected, it is determined whether the sense was AV in origin or ectopic. See col. 11, lines 22-26. As such, Van Dam fails to teach or suggest determining whether an autonomous intrinsic signal component is present within the sensed ventricular signal within the heart after delivering the pacing pulse. Therefore, the explicit teaching of the Van Dam reference precludes the Examiner’s characterization of the reference as disclosing providing a ventricular pace and then evaluating whether there is an autonomous intrinsic signal component to the resultant ventricular depolarization.

Consequently, the Park and Van Dam references fail to anticipate the pending claims.

### **III. Conclusion**

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

Should any issues remain outstanding, the Examiner is urged to telephone the undersigned to expedite prosecution.

Respectfully submitted,

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Date

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